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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MICHAEL CAFARO,  
RICK PLACENCIA, and GARY KOENEMANN

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Appeal 2009-005418  
Application 10/821,109  
Technology Center 3700

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Decided: September 10, 2009

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Before LORA M. GREEN, RICHARD M. LEBOVITZ, and  
STEPHEN WALSH, *Administrative Patent Judges*.

WALSH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) involving claims to a hair styling device. The Patent Examiner rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

## STATEMENT OF THE CASE

The Specification describes “hair styling devices, including curling irons and flat straighteners, with or without fast heat-up performance, that also generate negative ion airflow.” (Spec. ¶ 1.) Claims 1-7 and 9-13, which are all the pending claims, are on appeal. Claim 1 is representative and reads as follows:

1. A hair styling device that heats the hair of a user by conduction of heat from a heated surface to the hair of a user, wherein the device further comprises an ion generator system, a fan, and a motor, wherein the fan directs ion flow onto the hair of the user during use.

The Examiner rejected the claims as follows:

- claims 1, 2, 4, 7, 9 and 10 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Leung<sup>1</sup> and Nakagawa;<sup>2</sup> and
- claims 1, 3-6 and 11-13 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Cha<sup>3</sup> and Nakagawa.

Claims 2-7 and 9-13 have not been argued separately and therefore stand or fall with claim 1 under the applicable rejection. 37 C.F.R. § 41.37(c)(1)(vii).

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<sup>1</sup> Pub. No. US 2003/0052115 A1, by Anthony Kit Lun Leung, published Mar. 20, 2003.

<sup>2</sup> Pub. No. US 2002/0189128 A1, by Takashi Nakagawa et al., published Dec. 19, 2002.

<sup>3</sup> Pub. No. US 2005/0056631 A1, by Jun Hwa Cha, filed Sep. 16, 2003, published Mar. 17, 2005.

## OBVIOUSNESS

### *Principles Of Law*

When determining whether a claim is obvious, an Examiner must make “a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art.” *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995).

By regulation, an “Affidavit or declaration of prior invention” must be signed by all the inventors of the claim at issue, and must include a showing of facts. 37 C.F.R. § 1.131. Rule 1.131(b) reads:

The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained.

#### A. The Rejection Over Leung and Nakagawa

##### *The Issue*

The Examiner’s position is that Leung taught a curling iron having the features claimed except for the ion generator. (Ans. 3-4.) The Examiner found that Nakagawa disclosed a hair styling appliance with an ion generator, and concluded it would have been obvious to add an ion generator to Leung’s curling iron “in order to treat the hair and make it smooth and silky.” (*Id.* at 4.)

Appellants contend that Leung described a hot air curling iron, in contrast to the claimed curling iron that heats hair by conduction of heat from a heated surface. (App. Br. 4-5.) Pointing to Leung’s description of

heat convection, Appellants argue that “[n]ot only does the Leung reference explicitly reference convection as opposed to conduction, it states that heat travels through vents and not through the surface of the barrel.” (*Id.* at 5.) Appellants argue that because Nakagawa described a hot air hairdryer, it did not make up for the missing heat conduction function. (*Id.* at 5-6.) Appellants thus argue for reversal on the ground that the rejection did not account for all the claim elements. (*Id.* at 6.)

The issue with respect to this rejection is whether the Examiner’s evidence supports the finding that Leung’s curling iron heated hair “by conduction of heat from a heated surface to the hair of a user,” as recited in Appellants’ claims.

*Findings of Fact*

1. Leung’s Patent Application is entitled “Instant Heat Hot Air Curling Iron.”
2. Leung described the curling iron as “comprising: . . . a barrel or barrel portion having a cavity and having a heatable surface with one or more vents to release heat from the barrel . . . .” (¶ 15.)
3. Leung’s paragraph 28 reads:  
[0028] A shown in FIG. 5, heater 216 in barrel portion 300 is preferably rectangular in cross-section and positioned in heat sink 208. The heat from heater 216 is drawn to heat sink 208 and, preferably, via heat air apertures 307, to the exterior of barrel portion 300 for styling hair. Apertures 307 can be apertures or vents through the wall of barrel portion 300 that allow heat to be emitted from the interior of the barrel to the exterior of the barrel and ultimately to the hair of a user.

7. Leung's Figure 5 is shown below:

FIGURE 5

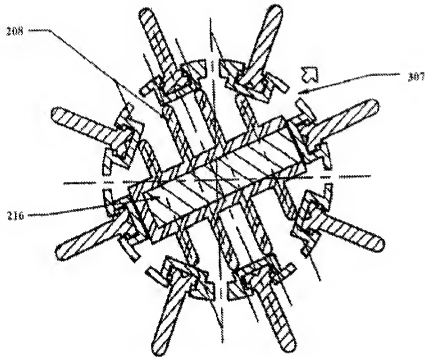


Figure 5 depicts heater core 216, in contact with and surrounded by heat sink 208, which in turn is in contact with and surrounded by barrel 300 (unlabelled), which is pierced by apertures 307.

#### *Analysis*

We agree with the Examiner that Leung's ¶ 15 supports the finding that Leung's barrel had a "heatable surface." (FP2.) We also agree with the Examiner that Leung's ¶ 28 and Figure 5 support the finding that the barrel conducted heat to hair when the curling iron was in use. Figure 5 shows that heat sink 208 is in contact with and absorbs heat from heater core 216.

(FF7.) Figure 5 also shows that heat sink 208 is in contact with barrel 300 (*id.*), and we find that the contact necessarily transfers heat to barrel 300. We also find that the air heated by passage over heat sink 208 transfers heat to barrel 300 as the heated air passes through the barrel and exits apertures 307. Appellants provide no evidence that it could be possible for barrel 300 to be heated only on the interior surface, such that the exterior surface remains cool and conducts no heat to hair when the curling iron is in use. We therefore agree with the Examiner that the exterior of barrel 300 is a heatable surface that does conduct heat to hair when the iron is in use. We therefore do not agree with Appellants' argument that the heat in Leung's curling iron does not travel through the surface of the barrel. (App. Br. 5.)

B. The Rejection Over Cha and Nakagawa

*The Issue*

Appellants contend that the Cha reference has a filing date of September 16, 2003, and that it “can be overcome by a [D]eclaration stating that the subject matter of the present invention had been reduced to practice in this country prior to September 16, 2003.” (App. Br. 6.) Appellants contend that their Declaration, with some initial omissions now rectified, establishes that Cha is not available as prior art. (*Id.* at 7-8.)

The Examiner found the Declaration “ineffective to overcome the Cha reference,” because the showing of facts was inadequate. (Ans. 5.) The claims at issue are directed to a flat straightener, but the Examiner found no drawings of a flat straightener among the drawings included with the Declaration, and “the [D]eclaration does not support the missing limitation.” (*Id.*) Further, the Declaration did not provide an “indirect showing that the

claimed species would have been an obvious modification of the species completed by the [A]pplicant.” (*Id.* at 6.)

The issue with respect to this rejection is whether the Declaration or drawings support a finding that Appellants’ reduced the claimed “flat straightener” to practice before Sept. 16, 2003.

*Findings of Fact*

8. Appellants provided Declarations under 37. C.F.R. § 1.131 by inventors Michael Cafaro (signed Feb. 18, 2008), Gary Koenemann (signed Feb. 19, 2008), and Rick Placencia (signed Feb. 19, 2008), all the listed inventors of the claimed subject. The inventors declared:

Prior to September 16, 2003, the filing date of the Cha reference, (United States Patent Publication No. 2005/0056631), we had conceived and tested the claimed subject matter in the application identified above in the United States, as evidenced by the invention disclosure attached hereto as Exhibit A. This invention disclosure was prepared prior to September 16, 2003, and thus evidences our conception and reduction to practice of the disclosed invention prior to the filing of the Cha reference.

Dec. ¶ 2.

9. Appellants further declare:

The invention disclosure supports prior invention. It contains the drawings that embody the design of the curling iron and flattener. These drawings are substantially identical to the drawings submitted with this application. This disclosure also contains a description of the invention of “a hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow.”

Dec. ¶ 3.



10. The invention disclosure attached to the Declaration states:

A hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow. . . . The negative ion system further includes a small DC motor with a fan that creates airflow to safely push the negative ions out the curling iron barrel or the flat plates of the straightener via small openings and safely onto the users' hair.

11. The drawings in the invention disclosure appear to show a curling iron but not a flat straightener. A drawing substantially identical to Specification Fig. 5 is not included.

### *Analysis*

We find, as did the Examiner, that the Declaration did not include a drawing of a flat straightener, nor did the Declaration explain that reducing the curling iron to practice supported the flat straightener as an obvious modification of the curling iron. The Examiner wrote that “an accompanying exhibit need not support all the claimed limitations, provided that any missing limitation is supported by the declaration itself.” (Ans. 5.) However, “in this instant case the [D]eclaration does not support the missing limitation.” (*Id.*)

We disagree. Each limitation of claim 5 is described in the invention disclosure, including an express statement of a “flat straightener” (FF10). Accordingly, Appellants’ Declaration establishes that they reduced claim 5’s flat straightener to practice before Cha’s filing date. Cha is not available as a reference against the claims.

### CONCLUSIONS OF LAW

The Examiner provided evidence sufficient to support finding that Leung's curling iron heated hair "by conduction of heat from a heated surface to the hair of a user," as recited in Appellants' claim.

The invention disclosure attached to Appellants' Declaration under Rule 1.131 included each limitation of claim 5's flat straightener.

### SUMMARY

We affirm the rejection of claims 1, 2, 4, 7, 9 and 10 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Leung and Nakagawa; and

we reverse the rejection of claims 1, 3-6 and 11-13 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Cha and Nakagawa.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

### AFFIRMED-IN-PART

dm

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